at1113exam: Expand, factor, and solve quadratics (v302)

1. Expand the following expression into standard form.

$$(9x + 8)^2$$

2. Expand the following expression into standard form.

$$(5x - 2)(9x - 8)$$

3. Expand the following expression into standard form.

$$(2x - 3)(2x + 3)$$

4. Solve the equation.

$$(7x + 8)(5x + 3) = 0$$

5. Factor the expression.
$$36x^2 - 25$$

6. Factor the expression.
$$x^2 + 7x - 18$$

7. Solve the equation.
$$5x^2 + 9x - 12 \ = \ 3x^2 - 4x - 5$$

8. Solve the equation with factoring by grouping.
$$20x^2 + 15x + 24x + 18 \ = \ 0$$